

Descartes, Other Minds and Impossible Human Bodies

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1. Introduction

For nearly a century, skepticism about other minds (SOM) has been a standard problem in epistemology. In recent accounts of social cognition, however, the success of simulation theory and theory-theory have moved philosophical discussion about other minds away from SOM.¹ Precedent for this move can be found in an unlikely place, namely in René Descartes' philosophy, for Descartes so diminished the role of the senses in gaining knowledge that SOM is precluded from becoming a self-standing skeptical challenge. At most, SOM is just one more incarnation of skepticism about the external world. Further, Descartes rejected the natural possibility of a human body existing without a mind. We are all familiar with the real distinction between body and mind, which, at first blush, speaks against this claim, but while a body in general can exist without a mind, a uniquely human body cannot. Descartes indicated all this in a number of places and especially in his correspondence with the Cambridge Platonist Henry More, who asked how we know infants have minds. Descartes replied by citing genetic facts—natural facts—about the origin of a human body which assure us that where we find a human body we necessarily find a human mind. We can therefore reconstruct an answer to SOM on Descartes' behalf that fundamentally rejects skeptical doubts unique to our knowledge of other minds. And, as a consequence, we can further unsettle the common presumption that the human body is a straightforward object of physical study. To the contrary, it looks to be a unique object that, in its entirety, belongs neither to the metaphysician nor to the physicist.

In what follows, I expand and defend these claims. I start in section two with SOM's true progenitor, the seventeenth-century French Cartesian Gerauld de Cordemoy. There I will show that the emergence of SOM in the seventeenth century (and more generally for anyone who is not an idealist) is tied to a conception of the human body as a living, functioning body with, at most, a contingent relation to a

1. This already vast literature continues to grow. For an accessible discussion of the competing views and some of the conceptual and methodological issues at stake, see Apperly 2008.

mind. In sections three and four, I supplement this claim by arguing that Descartes did not distinguish SOM from skepticism about the external world in any of his published work. In particular, in section three, I show that SOM is not considered anywhere in the *Meditations*. In section four, I present an interpretation of the “language test” from the *Discourse on Method* (*Discourse*) according to which Descartes sought only to falsify our belief that animals have souls or minds, a view prominent among his scholastic Aristotelian contemporaries as well as sixteenth- and seventeenth-century innovators like Michel de Montaigne and Pierre Charron.² This leaves us, so I claim in section five, with Descartes’ correspondence with More. I argue that this correspondence, which contains Descartes’ only genuine encounter with SOM, includes an explicit appeal to a common “nature” shared by all human bodies and an implicit appeal to the consistency of God’s activity in the world. From these assumptions, Descartes inferred that human bodies fit to be joined with a mind *always* have been and *always* will be. In other words, given what he tells More, Descartes does not have the right conception of the human body, as described in section two, for SOM. I conclude in section six by discussing the tension between Descartes’ conception of the human body and standard accounts of his anti-Aristotelian strategy in physics.

2. SOM: A brief history

There are a variety of ways to demarcate SOM. I am interested in discussing the *epistemological problem*, and I will proceed on the assumption that it is synonymous with SOM. The question motivating this problem relates to how we know other minds exist: What justifies our belief that a given body has a mind or thinks? It is this version of the problem of other minds for which we have competing historical accounts. One finds, for example, Thomas Buford introducing an anthology on philosophical issues related to other minds with the suggestion

2. See Desmond Clarke’s recent work for a comparison between Descartes’ views on animal souls and the views of Montaigne and Charron (Clarke 2003, 72ff, and Clarke 2006, 334–335).

that “the other minds problem received its first clear formulation by John Stuart Mill in the nineteenth century”.³ Buford is referring to the epistemological problem. To clarify this point, it will help to distinguish this problem from three others. The first is the *ordinary problem*. On countless occasions, we would all like to know what someone else is thinking, and the ordinary problem is rooted in this simple everyday challenge: What justifies our belief that someone is thinking a particular thought? The existence of other minds is not at issue in these contexts, and no one could possibly claim to have introduced this problem. Distinct from the epistemological problem and the ordinary problem is the *conceptual problem*: How do I so much as conceive of other minds, or how can my mental concepts refer to others’ mental states?⁴ Finally, there is the *descriptive problem*: how do we actually go about attributing mental states to others? This last problem has received the most attention of late, with simulation theory and theory-theory prominent answers in the literature.

Thomas Buford’s claim about the origin of SOM notwithstanding, Descartes is frequently identified as the source of all things skeptical.⁵ And, of course, Descartes wrote a great deal that might be read as either a formulation of SOM or an unintentional bequeathing of SOM to the rest of us. At the beginning of Meditation Two, for example, when

3. Buford 1970, xii. Buford’s claim overlooks the fact that Malebranche, Leibniz, Berkeley, Reid and even Kant, not to mention Fichte and the other German Idealists, all reflect explicitly on the epistemological problem of other minds. Anita Avramides’ recent *Other Minds* (2001) is helpful on a number of points, but it excludes, most importantly, Cordemoy. Similarly, the “Other Minds” entry in the Stanford Encyclopedia of Philosophy (available at <http://plato.stanford.edu/entries/other-minds/>; last visited March 2011) leaves out a number of relevant historical figures.
4. Although I am focusing here on the epistemological problem, Descartes is not without an answer to the conceptual problem. Roughly, Descartes would maintain that our knowledge of what we are as thinking things involves knowledge of a primary attribute of substance, which is, by its nature, a property that applies to minds in general and not our minds in particular.
5. For example, in a chapter titled simply “Descartes and other disasters”, John Searle’s recent *Mind: A Brief Introduction* links Descartes to SOM (Searle 2004, Chapter 1).

reflecting on what he is no longer convinced exists, Descartes' mediator concedes "that there is absolutely nothing in the world, no sky, no earth, *no minds*, no bodies".⁶ Just as the doubts raised in Meditation One threaten our pretense to know the world on the basis of the testimony of the senses, they also render doubtful the existence of minds known solely on the testimony of the senses. The meditator's first constructive step is to establish that his own mind exists without the aid of the senses—he is an "I", that is, a "thinking" and not a veridically sensing "thing"—yet we look in vain in the subsequent meditations for an explicit proof, let alone for evidence, that other minds exist. In the Second Replies, Descartes even acknowledges that "in my *Meditations*...my supposition was that no other human beings [*homines*] were yet known to me".⁷ Nevertheless, Descartes uses the first-person plural a number of times after Meditation Two, as if other human beings are known to him.⁸ Whatever we make of this shift from singular to plural, which suggests, at the least, that Descartes was not attentive to SOM, there is no specific proof for the existence of other minds in the *Meditations*.⁹

6. I cite Descartes using "AT" to refer to the standard original language edition of Adam and Tannery, followed by volume and pagination. I have generally relied on the Cambridge translations of Descartes' work, which include the original AT references in the margins. The Cambridge translations will henceforth be referred to by "CSM" followed by volume for volumes one and two and by "CSMK" for volume three, after which I include the pagination. The passage quoted above can be found at AT VII 25, CSM II 16. (Emphasis added.)
7. AT VII 142, CSM II 102. This remark is part of Descartes' explanation for why he is seeking objective truth and not merely truth "relative to human beings".
8. See, for example, AT VII 21, 30 and 32.
9. It might be objected that the proof for the existence of God in Meditation Three is a counterexample. Perhaps one might also claim that the supposition of an evil genius in Meditation One never actually isolates Descartes in a world without other minds. In either case, however, the manner in which these "other minds" are introduced or known to exist cannot generalize. The proof for the existence of God is unique to God, and the supposition of an evil genius is about denying us knowledge, not providing it.

The absence of such a proof troubled the first-generation Cartesian Gerauld de Cordemoy.¹⁰ In fact, Cordemoy became the first seventeenth-century figure, and perhaps the very first person ever, to give an unambiguous formulation of SOM. Writing eighteen years after Descartes' death, Cordemoy begins his *Discours Physique de la Parole* (*Discours*):

Amongst the Bodies, I see in the World, I perceive some, that are in all things like mine, and I confess, I have a great inclination to believe, that they are united to minds, as mine is. But when I come to consider, that my Body hath so many operations distinct from those of my mind, and that nothing of what maketh it subsist depends at all from Her, I think I have at least ground to doubt, that those Bodies are united to minds, until I have examin'd all their actions: And I do even see that by the maxims of good sense I shall be obliged to believe, that they have no mind, if they do only such things, whereof I have found in my self that the Body alone may be the cause.¹¹

Although Cordemoy's monograph provides numerous insights into the state of seventeenth-century anthropology and linguistics, its opening paragraph casts it as a sustained attempt to answer SOM. Cordemoy develops the epistemological problem by specifically taking for granted knowledge of his own mind and body and then finding "ground to doubt" that other "bodies are united to minds". As an interpreter of

10. Cordemoy is little discussed in the English-speaking world apart from infrequent references to his atomism, his occasionalism or his role in the correspondence between Leibniz and Arnauld. See, however, Ablondi 2005 for some of the broader details of Cordemoy's life and natural philosophy. Cordemoy's place in the history of SOM was brought to my attention by Van de Pitte 1975 and Gabbey 1990.
11. In 1668, the same year the *Discours* was published, an English translation appeared as *A Philosophical Discourse Concerning Speech, Conformable to the Cartesian Principles*. All translations are taken from the 1668 English translation of the *Discours*. The original French is reproduced in Cordemoy 1968, 201–256.

Descartes, he is noticing that a proof for the existence of other minds would seem to be required if we begin, as Descartes clearly does in Meditation Two, with “no sky, no earth, *no minds* [and] no bodies” and then prove only the existence of bodies.

Countless of our beliefs lack a specific justification after Meditation One, however, so it is worth pausing to consider the oversight that Cordemoy identified. Specifically, why does Cordemoy write only about our belief that other minds exist? What makes other minds worthy of separate treatment? If we imagine the *Meditations* as a guide to how we justify our beliefs, we might better appreciate the question I am putting to Cordemoy. Like a work of mathematics that explains how to perform mathematical proofs but fails to prove the Pythagorean Theorem, Descartes’ *Meditations* explains how to gain knowledge but fails to prove that other minds exist. In the former instance, a failure to prove the Pythagorean Theorem may be an oversight for someone interested in the Pythagorean Theorem, but it is hardly a flaw in a work showing how to perform mathematical proofs. So long as the explanation of how to produce a mathematical proof can be applied to the Pythagorean Theorem, the work has accomplished its purpose.

What prevents us from reaching the same conclusion about the omission of a proof for the existence of other minds? Descartes does not offer a specific proof for the existence of the sky or the earth—the other things listed in Meditation Two—yet this is not a major lacuna in the text. It seems safe to conclude that Cordemoy must be motivated by the absence of a proof *and* the further belief that the *Meditations* does not equip us to justify our belief in the existence of other minds. In other words, in the *Discours*, Cordemoy proceeds as though Descartes’ claims in the *Meditations* leave us with a distinctive epistemological problem (as to whether other minds exist) that cannot be resolved in the same way as the problem of the external world. Minds are not comparable to the earth or the sky. The oversight that Cordemoy identified was that it is one thing to show that bodies exist but something else to show that minds exist attached to those bodies. Descartes equips us to show the former but not the latter.

In the remainder of this section, I will elaborate on the way in which Cordemoy presents SOM and the assumptions that he made. I then ask whether Descartes shared Cordemoy’s assumptions. As we will see, Descartes and his follower share many common assumptions, but while Cordemoy draws on the *Meditations*, Descartes makes additional claims that Cordemoy fails to acknowledge. In particular, Cordemoy does not recognize Descartes’ rejection of the possibility that a human body without a mind could exist in the natural world. This further claim by Descartes short-circuits any effort to motivate SOM, as we will see in later sections. Thus, while Descartes and Cordemoy share some of the necessary assumptions leading to SOM, they do not share the assumption that the human body has a contingent relationship with a mind.

The most obvious assumption relevant to SOM is the privilege initially assigned to self-knowledge in Meditation Two’s *cogito* argument. In the nineteenth century, John Stuart Mill argues that this privilege leads irrevocably to SOM. Even the “most strenuous Intuitionist,” writes Mill, “does not include this [knowledge of other minds] among the things that I know by direct intuition. I conclude...[other minds exist] from certain things, which my experience of my own states of feeling proves to me to be marks of it”.¹² In his analysis of Descartes’ relationship to SOM, Gareth Matthews echoes Mill’s assessment and likewise identifies this privilege as a condition for SOM. Lacking “a worry about how I can be justified in *inferring* that there are other minds when the only one I can *observe directly* is my own,” insists Matthews, “there is no Problem of Other Minds”.¹³

The basic idea shared by Mill and Matthews is both simple and entirely justified. To generate SOM, there must exist an asymmetry between the ways in which we know our own minds exist—self-evidently, intuitively or directly through introspection—and the ways in which we could possibly know other minds exist—on the basis of

12. Mill 1865, 242. See also Norman Malcolm’s famous rebuke of Mill, where he calls this privilege “the most fundamental error” Mill makes (Malcolm 1958, 74).

13. Matthews 1986, 142 (emphasis added).

sense experience supplemented with argument or inference or, in a word, indirectly. Cordemoy's presentation of SOM assumes this asymmetry. He writes of what "I see", "I perceive" and "I confess", working with confidence in his first-person beliefs. He "consider[s]" what he knows about his own body and mind and concludes that he must examine "all...[the] actions" of other bodies before drawing any conclusions about other minds. Put simply: Cordemoy knows that his mind is united to his body, but he knows this in a way that jeopardizes his knowledge of other minds. If this is all Cordemoy is assuming in the *Discours*, then the logic of the *Meditations* implies that SOM could arise anytime after Descartes privileges self-knowledge in Meditation Two.

It may come as a surprise, then, that for Cordemoy, Meditation Two does not, by itself, lead to SOM. He explicitly envisioned his *Discours* as akin to a Meditation Seven, added onto Descartes' original six. "I proposed in the Six Discourses which preceded this, the means to know Ourselves, & made it manifest, that it only consisted in discerning in us the Operations of the Soul, and those of the Body. Now I propose the means of knowing Others."¹⁴ Another discourse was needed because dualism and the return of the external world still left the existence of other minds unresolved. But while Cordemoy believed Descartes' response to the doubts from Meditation One was incomplete, attention to what he says here and in the opening passage of the *Discours* reveals something less obvious. Cordemoy believed that SOM emerges with respect to the already-established existence of bodies "that are in all things like mine". It is these bodies whose "actions" need to be "examin'd". In other words, it is only once we know that the external world exists and includes other bodies like our own that Cordemoy asks about other minds. Thus, while there may be other assumptions supporting SOM—such as the privilege Descartes gives to self-knowledge identified by Mill and Matthews—it is only once the

14. Gerauld de Cordemoy 1668, preface, unpaginated.

existence of bodies of a certain kind has been established that SOM gains Cordemoy's attention.

This is no more a historical accident than the privileging of self-knowledge in the generation of SOM. The threat of modern or post-Cartesian skepticism is strongest when it unseats our best claims to know.¹⁵ Such is the case with the explicit doubts raised in Descartes' *Meditations*. For instance, they do not stop with the reliability of the senses when observing objects far off in the distance. Instead, the doubts of Meditation One undermine the senses as a guide to truth even in those situations where the senses are used to correct themselves:

Yet although the senses occasionally deceive us with respect to objects which are very small or in the distance, there are many other beliefs about which doubt is quite impossible, even though they are derived from the senses—for example, that I am here, sitting by the fire, wearing a winter dressing-gown, holding this piece of paper in my hands, and so on.¹⁶

Offering reasons to doubt the reliability of the senses even in cases like these, when objects are right in front of us, takes skepticism to its logical and, in the case of modern skepticism, its distinctive extreme. Likewise, skeptical doubts about the existence of other minds do not target human bodies in the far-off distance or lifeless bodies lying dead before us. Rather, they provide reasons to doubt that the living and breathing human bodies right in front of us have minds. Short of

15. This aspect of Descartes' skepticism is emphasized by Harry Frankfurt, who notices that "the perceptions in which certainty is to be sought [according to Descartes] will be those of an ideally qualified perceiver under ideal external conditions" (Frankfurt 2008 [1970], 55). Stanley Cavell emphasizes the same point when he uses the label "best case of knowledge" to describe the target of skeptical doubt (Cavell 1979, 129ff.). For discussion of the similarities and differences between Academic and Pyrrhonian skepticism as compared to Descartes' "modern skepticism", which uniquely calls into question our knowledge of the external world in a completely general way, see Burnyeat 1982; cf. Fine 2000 and Broughton 2002, 90–92.

16. AT VII 18, CSM II 12–13.

doubting what we know in these circumstances, the skeptic has failed to challenge our beliefs about other minds, because she has failed to cast doubt on our best case of knowing. In other words, we will only have arrived at a modern skeptical version of SOM if we have questions about all the presumptive justifications for believing in the existence of other minds, including our justifications for believing in the mindedness of the bodies right in front of us.

The moral to draw from this last claim is that an adequate reconstruction of SOM's origins in the seventeenth century must be tied to a conception of the human body as a functioning living thing, the existence of which neither depends on nor necessarily implicates the existence of a mind.¹⁷ Put simply, it is as important to have the right conception of the human body to account for the emergence of SOM in the seventeenth century as it is to have the right conception of the mind.¹⁸

17. The subsequent history of SOM confirms this fact. In Mill's formulation of SOM, he asks, by "what evidence do I know, or by what considerations am I led to believe, that there exist other sentient creatures; that the walking and speaking figures which I see and hear, have sensations and thoughts, or in other words, possess Minds?" (Mill 1865, 243). Mill is also interested in only certain bodies, and I believe he means living human bodies that are, in all respects, fully functioning.

We can draw a similar conclusion from Bertrand Russell's appeal to the argument from analogy:

We observe in ourselves such occurrences as remembering, reasoning, feeling pleasure, and feeling pain. We think that sticks and stones do not have these experiences, but that other people do....It is clear that belief in the minds of others requires... something that may be vaguely called "analogy." The behavior of other people is in many ways analogous to our own, and we suppose that it must have analogous causes. What people say is what we should say if we had a certain thought, and so we infer that they probably have these thoughts. (Russell 1948, 433)

Beginning with other "people", Russell's conception of human bodies displaying behavior, though not necessarily mindedness, motivates SOM. For a detailed discussion of the need for a specific conception of the body in order to generate the problem of other minds, see Long 1964.

18. I refrain from arguing that this is a condition for the general possibility of SOM, because later in the eighteenth century SOM was recast without reference to bodies. Specifically, "egoism" came to be identified with SOM, testified to by

To bring this point out more clearly, notice that if we accept that the human body depends on or otherwise necessarily involves a mind, then questioning the existence of other minds is tantamount to questioning the existence of human bodies. Additionally, it follows that finding a human body is tantamount to finding a human mind.¹⁹ For SOM to represent a self-standing skeptical challenge, these links between minds and human bodies must be broken. What is needed is the possibility that there are living, breathing human bodies that, for some reason, perhaps even a reason given by the skeptic, bear a contingent relation to minds. As Cordemoy indicated, it is this possibility that sets the framework for SOM: "my Body hath so many operations distinct from those of my mind, and that nothing of what maketh it subsist depends at all from Her, I think I have at least ground to doubt, that those Bodies are united to minds". I conclude that for SOM we need to accept that what we perceive is not a living human body with a mind but a *mere human body*.

It may seem all too obvious that mere human bodies exist, but real innovation would have been required in the seventeenth century to make such a claim. Consider just the case of the scholastic Aristotelianism that dominated in educational institutions. According to the hylomorphic view at the core of Aristotelian philosophy, all natural bodies are composites of matter and form.²⁰ Shifts toward a more ro-

references in Christian Wolff, C.M. Pfaff and the *Encyclopédie* (for more on "egoism", see McCracken and Tipton 2000, 178–79). The version of SOM that arises for immaterialists is hard to distinguish from the questions those who believe in immaterial souls communing in the afterlife must confront.

19. As I will show in the sections ahead, it is this latter strategy that best characterizes Descartes' position on how we recognize other minds: Where there are human bodies, there are necessarily human minds. And what makes a human body? Descartes' answer in the context of SOM is that it must be produced in a very specific way.

20. The centrality of hylomorphism to Aristotle's thought is well documented, but for an introductory account, see Shields 2007, 49ff. Discussion of hylomorphism and its various complications in the medieval period can be found in Pasnau 2010. The persistence of hylomorphism and the modifications made to it during the early modern period are described in the essays contained in Manning 2012a.

bust ontological dualism in scholastic accounts of matter and form can be detected in the sixteenth and seventeenth centuries—and there are highly technical complications introduced if we consider Thomist and Scotist disputes over the existence of prime matter and the plurality of forms—yet the view that matter and form are not separate entities but elements of a single whole, distinguishable by conceptual analysis alone, was the norm.²¹ This means that matter and form will be present in any natural or artificial body, whether it be a rock; a chair; or even the embryo, the fully functioning human body or the body of a corpse.²² To be a body of any kind was to be a matter-form composite.

21. Alternative views of matter and form among the Scholastics are detailed in Ariew 1998.

22. An anonymous referee pointed out that in the initial version of this paper there were two claims that needed to be considered more explicitly: first, the claim that a living human body has a form and, second, the claim that a human corpse has a form. Since receiving the referee's comments, it occurred to me that to be complete, this paper needs to consider a third claim as well: that the human embryo must have a form. The referee's question was: Given these separate claims, which does Descartes reject? That is, does Descartes reject that (1) the living human body has an Aristotelian scholastic form, (2) the human embryo has an Aristotelian scholastic form and, (3) the human corpse has an Aristotelian scholastic form? Descartes' substance-mode ontology is purposefully hostile to his predecessors' use of matter and form, which implies he rejects (1)–(3), yet, in a number of places, Descartes refers to the human soul as an element in a "substantial union" with the body or as a "substantial form" (e.g., AT VII 228, CSM II 160 and AT III 505, CSMK 208; for discussion of Descartes' rejection of scholastic Aristotelian forms, see Garber 1992, 94–116; Des Chene 1998; Pasnau 2004; and especially Hattab 2009). There remains a heated scholarly discussion about how to interpret Descartes' use of "form" in connection with the souls of human beings—for more on which, see note 71 below—but I provide evidence in section five that Descartes does not reject (1) but rather accepts something very much like it, because he rejects the natural existence of a "mere human body". What about (2) and (3)? This question is complicated by Descartes' promiscuous use of "substance" to refer to the particular bodies studied by the physicist, a fact that obscures the ontological status of particular bodies without forms, which I would argue are not substances strictly speaking (for discussion of the ontological status of particular bodies that lack substantial forms, see Slowik 2001, Sowall 2004, Normore 2009, Hatfield 2009 and Manning 2012b). I cannot give this question its full due, but, roughly, I would claim that the human embryo is not a living *human body*, strictly speaking, and neither is the human corpse (cf. AT XI 330–331, CSM I 329–330). The embryo is a body that is not yet fit to receive the only form remaining in Descartes' philosophy, and the

In the specific case of living bodies, of which the human body is just one example, scholastic Aristotelians identified forms with souls—the Latin for "soul" is *anima*, from which the English "animated" derives. Souls, in turn, were differentiated from one another according to the functions they introduced into matter. So, for example, a vegetative soul is the form of a body that can grow and take in nutrition. Plants have vegetative souls. Animals that move and interact with the world through sense experience have motive or sensitive souls. Human beings, who can contemplate universals, have rational souls or minds. Thus, roughly speaking, whereas plants have one kind of soul informing their matter according to the scholastic Aristotelian, animals have another kind of soul that includes the functions of the vegetative soul, and humans have yet another kind of soul that includes the functions of the other two. In each case, it would be wrong to simply identify the soul with matter but it would also be wrong to believe that living plants, animals or human bodies exist without their appropriate souls.

The Aristotelian tradition's conception of a living body is clearly hostile to the possibility that there could exist what I dubbed earlier "a mere human body"—or really any mere body, if that means a body without a form. Just as the human body's matter depends on our soul, so too does our soul depend on our body's matter.²³ With living things generally, this means that the soul cannot be active or present unless the matter is structured or organized in the right way. In a living human body, all the material conditions necessary for the operation of a rational soul will be present. When these material conditions are present, the rational soul

corpse is a body no longer fit to have such a form. Further discussion of Descartes' views on embryology appears below in section five and in note 61.

23. Although the rational or intellectual soul is unique in not requiring a specific organ, according to scholastics like Aquinas, it would still not be able to exist in its natural state—that is, in union with matter as the soul of a human being—without some dependence on matter. The thorny issue of Christian immortality is in the background here for scholastics, as is the pressing interpretative question of whether or not the soul is studied by the metaphysician or the natural philosopher. For discussion, see Pasnau 2002, 45ff.; Pasnau 2007; and Bakker 2007. For how these issues impact our interpretation of Descartes, see Manning (forthcoming).

must also be present. Any other view is an anathema to Aristotelian hylomorphism. As a result, scholastic Aristotelianism denies the possibility of a mere human body and immunizes itself from SOM.²⁴

Cordemoy appears to have believed that Descartes' *Meditations* and the physics that it supports deliver the innovation necessary to accept that a mere human body may exist. Specifically, in Meditation Six, once the real distinction between mind and body is established such that minds and bodies can exist separate from one another, it is an easy step to the possible existence of mere human bodies.²⁵ This explains why Cordemoy wrote a Seventh Discourse in the *Discours*, a proverbial Meditation Seven. It also explains why considerations about the nature of the mind and subjectivity alone did not create a conscious recognition of SOM in the seventeenth century or before. Yet, as I will go on to argue, in spite of privileging self-knowledge in Meditation Two and in spite of advocating the real distinction between mind and body in Meditation Six, Descartes several times refrains from describing the living human body as a body that exists without a mind. Thus, contrary to how Cordemoy understands Descartes' position, Descartes does not accept the existence of mere human bodies, and Descartes had good reason not to engage with SOM. In sections three and four, I support this claim by explaining away those texts where Descartes appears to be actively considering SOM.

3. No SOM in Descartes' *Meditations*

Beyond the two sentences already cited from the *Meditations* and the *Objections and Replies*, there are only a handful of passages in Descartes'

24. For more on Aristotle and SOM, see the concluding pages of Sorabji 1974.

25. In fact, there is an additional premise needed to make this transition. Specifically, one needs a monistic account of life in terms of extended matter—i.e., a mechanical account of life. This is precisely what Platonic dualism lacked and may explain the emergence of SOM only in the seventeenth century (cf. Tsouna 1998 for discussion of ancient philosophers' views regarding SOM). In any case, once mind and body can exist separate from one another and material explanations exist for living functions, then mere human bodies look to be a real possibility.

entire corpus that appear relevant to SOM. A number of commentators have worked these passages over, using them to do everything from identifying an answer to the other-minds skeptic to supporting the claim that Descartes recognized and invented the problem. I will be using these passages once more, but this time to support the claim that Descartes never considered SOM of his own accord.²⁶ More than mere blindness to what you may still think an inevitable problem, however, Descartes had good reason to limit his attention to the skeptical problem of the external world, because the same strategies for acquiring knowledge in that case apply in every other context. This section builds to this conclusion by examining Descartes' correspondence and especially the *Meditations* more closely. The next section examines Descartes' *Discourse* and the potential role of language in assessing who does and does not have a mind. Once making clear that Descartes never considered SOM in any of his published works, I turn, in section five, to his actual response to SOM.

In a late letter to Henry More, Descartes made his most explicit claim about our access to the minds of others. The subject under discussion was the attributes a corporeal substance must have in order to exist. Opposing Descartes' view from the *Principles of Philosophy* (*Principles*) that the primary attribute of extension alone secures the existence of corporeal substance, More suggested that "some properties are prior to others / *proprietates alias alijs esse priores*".²⁷ In particular, as Descartes summarized his correspondent's views, More claimed

26. Frederick Copleston is right that "neither in the *Meditations* nor in the *Principles of Philosophy* does...[Descartes] treat specifically the problem of our knowledge of the existence of other minds". Copleston adds that "if called up, [Descartes] would doubtless produce an...argument...[appealing] to the divine veracity, to existence, [to] the existence of other minds" (Copleston 1960, Volume 4, 117). Anita Avramides also recognizes that Descartes does not consider SOM. Her reconstruction of what Descartes' response to SOM might have been appears in Avramides 2001, 59ff. Avramides does not cite the texts I discuss below in section five, however, which renders her account more speculative than it needed to be. I am unsure if she would accept the reconstruction I offer beyond section three.

27. AT V 299.

that “being perceivable by the senses” comes before extension.²⁸ Descartes responds by encouraging More to consider whether “being perceivable” could ever be anything but an “extrinsic denomination / *denominatio extrinseca*”. With this technical term of scholastic Aristotelian logic, all Descartes is saying is that whether a given substance is perceived is a fact about perceivers. It is not a fact about the substance itself. In other words, Descartes is pointing out that “being perceivable” is a relational property and as such it should not be thought an essential property of corporeal substance.

For good measure, Descartes adds that “being perceivable” could never be an attribute of the subvisible bodies that we know to exist, because “sensory nerves so fine that they could be moved by the smallest particles of matter are no more intelligible to me than a faculty enabling our mind to sense or perceive other minds immediately [*immediatè*]”.²⁹ The fact that we have no difficulty recognizing that such bodies exist, however, even though they are not perceivable, is meant to tip the scales in Descartes’ favor. More is supposed to agree that subvisible bodies exist and are extended and that qualifying their existence or our conception of them by citing the need for “being perceivable” denies what we otherwise understand quite clearly—that, as bodies, they need only to be extended to exist.

So much for the topic under discussion with More. But what should we make of Descartes’ analogy between our knowledge of the existence of subvisible particles and our knowledge of other minds? Does our lack of a faculty comparable to sight—which is going proxy for perception of corporeal substance in the exchange with More—imply that the existence of other minds is somehow doubtful?³⁰ The answer is no.

28. AT V 341, CSMK 372.

29. AT V 341, CSMK 372; modified.

30. Descartes sometimes claims that the particular configurations of imperceptible matter cannot be known with absolute certainty (e.g., AT VIII B 327, CSM I 289). To this extent, our lack of direct perception may look to be a handicap. Something similar applies to the case of other minds. Although we know that such minds exist, our lack of direct perception entails that we do not always know what someone else is thinking.

Indeed, the analogy implies that knowing about the existence of other minds faces no obstacles distinct from those related to knowing that subvisible bodies exist. We are not immediately aware of either subvisible particles or other minds, yet to Descartes this does not register as a skeptical problem. To the contrary, what his remark to More indicates, quite innocently, is that we cannot imagine having immediate access to other minds because the fact that they are *other* minds just means that they are not immediately available to us. It is the same with subvisible particles. The whole point of Descartes’ response to More is that the existence of these things and our knowledge of their attributes has nothing to do with their being immediately perceivable.

But then how do we know subvisible particles or other minds exist if they are not immediately perceivable? The answer will have to be that we infer their existence, and, in fact, this is Descartes’ answer whenever the existence of anything is in question besides the existence of the “I” and “God”, both of which can be known to exist without the need for an inference. Descartes does not say any of this in the passage addressed to More. But in a sequence of passages related to the famous wax example from Meditation Two, he begins to give precisely this answer. Descartes even seems to draw an analogy to other minds when emphasizing that we do not ordinarily “see” the truth of anything with the senses alone. He writes:

We say that we see the wax itself, if it is there before us, not that we judge it to be there from its colour or shape; and this might lead me to conclude without more ado that knowledge of the wax comes from what the eye sees, and not from the scrutiny of the mind alone. But then if I look out of the window and see men crossing the square, as I happen to have done, I normally say that I see the men themselves, just as I say that I see the wax. Yet do I see any more than hats and coats which could conceal automatons. I *judge* that they are men. And so something which I thought I was seeing with my eyes is

in fact grasped solely by the faculty of judgment which is in my mind.³¹

Just as the “scrutiny of the mind” and the “faculty of judgment” are needed to know the “wax itself”, which some claim the “eye sees”, the “scrutiny of the mind” is needed to know that what we “see” from our window are men and not automatons. Descartes is not suggesting that seeing men, and therefore bodies with minds, requires a special kind of judgment or inference on our part. There is not a distinctive epistemological problem here that might support Cordemoy’s efforts in the *Discours*. Instead, as Gareth Matthews tells us when explaining this passage from Meditation Two, to “get the problem of other minds going [here], one would need to introduce the suggestion that, even if we went down into the street and disrobed those figures, we could not rule out” that they were machines.³² Or, as I labored to put the point in Section Two, only if the living, functioning human bodies right in front of us bear a contingent relation to minds could this passage deliver us into SOM. What the “hats and coats” passage illustrates is that we deploy the powers of the mind in judging and inferring what we otherwise still freely describe as “seeing”, even though “seeing” is never a matter of simple and immediate visual perception. Thus, in answer to the question that initially led us back to Meditation Two, we know subvisible bodies and other minds exist in precisely the same way—through a judgment or inference. This is the point of the wax example itself: even in what appears the simplest case of knowing—that I see this piece of wax—the senses play a relatively minor role as compared to our “faculty of judgment”.

Accepting that the senses by themselves do not justify claims to immediately know anything, the *Meditations* still owe us an account of how to effectively exercise our judgment so as to avoid false beliefs about things like pieces of wax and other minds. Descartes delivers

31. AT VII 32, CSM II 21.

32. Matthews 1986, 142.

just such an account in Meditation Three, with the derivation of the “general rule” that we can trust our clear and distinct perceptions.³³ This claim is carried further in Meditation Four, where the intellect and will are described as the two elements or “concurrent causes” in judgment. We learn there that our errors “depend on both the intellect and the will simultaneously”. Specifically, “all that the intellect does is to enable me to perceive the ideas which are subjects for possible judgments”.³⁴ By contrast, the will “simply consists in our ability to do or not do something....It consists simply in the fact that when the intellect puts something forward for affirmation or denial”, no external force makes us affirm or deny the content before us.³⁵ The purpose of the theodicy in Meditation Four is to show that it is within our power to coordinate the two elements of judgment so as to avoid error. We are responsible for our erroneous beliefs, because we should affirm only those of our ideas we cannot help but immediately judge to be true, which are none other than our clear and distinct perceptions. In other words, while all knowledge will involve judgment, there are some ideas that we immediately affirm and others that are mediately affirmed after argument and inferences from clear and distinct perceptions.

Descartes’ one-size-fits-all strategy for securing knowledge gave him good reason not to do what we saw Cordemoy doing in section two—namely, offer a specific response to SOM. For Descartes, the important distinction among our various knowledge claims is drawn between those that we can know immediately—the “I” (Meditation Two) and “God” (Meditation Five)—and everything else, which requires an inference. The existence of a piece of wax is something we must infer. So, too, an inference was required to know that the figures we see in the distance are genuine human beings. Recall that, for Cordemoy, the implicit justification for a further meditation after Meditation Six is that SOM poses a unique challenge distinct from the

33. AT VII 35, CSM II 24.

34. AT VII 56, CSM II 39.

35. AT VII 57, CSM II 40.

problem of the external world. According to Cordemoy, we can stop at our knowledge that bodies exist and then ask whether those bodies have minds. Descartes' position, however, is that, with the sole exception of our knowledge of ourselves and God's necessary existence, we are always inferring or drawing on implicit arguments whenever we move beyond our own ideas. As a result, there is not a distinctive epistemological problem of other minds, because affirming only our clear and distinct perceptions provides us everything we need for resolving the epistemic difficulties with which we may find ourselves. The manner in which we come to know that there are other minds is the same manner in which we come to know that the external world exists and that this is a piece of wax.³⁶

Descartes stipulates to this conclusion when he reflects on his own epistemological success. In the Synopsis to the *Meditations*, which he wrote after finishing the rest of the work, Descartes emphasized that his main accomplishment was not his response to the skeptic. Instead, it was the division implied between, on the one hand, knowledge that the self and God exist and, on the other hand, knowledge that anything else exists. The former are known to exist directly or immediately because they are instances of clear and distinct perception. Knowledge that anything else exists calls for premises and an inference to a conclusion. Referring specifically to the results of Meditation Six, where he finally infers the existence of "material things", Descartes claimed to produce "all the arguments from which we may infer [*possit concludi*] the existence of material things".³⁷ Yet, he continued:

[The] great benefit of these arguments is not, in my view,
that they prove what they establish—namely that there

36. The fact that we must make an inference in both cases does not mean the two judgments are exactly the same. The only basis on which such judgments could be made for Descartes, however, is either practiced introspection or sensory experience. Both are parasitic on our own ideas, and both are involved in our knowledge of the external world and other minds. This robs SOM of its uniqueness. Fred Dretske makes precisely the same point in his effort to "demote" the problem of other minds in Dretske 1973.

37. AT VII 15, CSM II 11; modified.

really is a world, and that human beings have bodies and so on—since no sane person has ever seriously doubted these things. The point is that in considering these arguments we come to realize that they are not as solid or as transparent [*perspicuus*] as the arguments which lead us to knowledge of our own minds and of God, so that the latter are the most certain and evident of *all possible objects of knowledge* for the human intellect.³⁸

"[O]ur own minds" and "God" are privileged instances of knowledge. Everything else, the "and so on" referred to among "all possible objects of knowledge", is classed together and separate from the privileged class. But Descartes does not mean to imply that these lesser "possible objects of knowledge" cannot be proven or established. They can be, and Meditation Six illustrates how. For Descartes, the way in which we come to know the external world exists is emblematic of how we come to know everything outside of the privileged class. Cordemoy believed otherwise. For Cordemoy, the knowledge that a human body exists was, at most, defeasible evidence for the further judgment that other minds exist. This, however, is a claim that Descartes implicitly and explicitly rejects, as we will see in sections four and five below.

To sum up my claims to this point: I have argued both that Descartes does not consider SOM in the *Meditations* and that there is no pressing need that he should. Further, I have argued that Descartes has reason to think SOM poses no special problem distinct from the problem of the external world. But to many of Descartes' readers, part five of the *Discourse* suggests a different story. In particular, passing the so-called "language test" is often read as an answer to SOM. This was Cordemoy's view, but in the next section, I will show that answering the skeptic was not among Descartes' goals in the *Discourse* and that no answer to SOM is to be found there.

38. AT VII 15–16, CSM II 11; emphasis added.

4. No SOM in Descartes' *Discourse*

In part five of the *Discourse*, Descartes synthesizes the results of his early work in physics. Drawing on the then-unpublished *World* and *Treatise on Man*, he presents his cosmology and mechanical account of life before venturing into the “difference between our soul and that of beasts [*la difference qui est entre nostre ame & celle des bestes*]”.³⁹ He writes later in part five of having made

special efforts to show [in the *Treatise on Man*] that if any such [purely physical] machines had the organs and outward shape of a monkey or of some other animal that lacks reason, we should have no means of knowing that they did not possess entirely the same nature as these animals; whereas if any such machines bore a resemblance to our bodies and imitated our actions as closely as possible for all practical purposes, we should still have two very certain means of recognizing that they were not real men.⁴⁰

There are two important claims worth noticing in this passage. First, Descartes is preparing us to consider machines that bear only “a resemblance to our bodies”. He takes this to mean that they are indistinguishable from our bodies qua bodies for “all practical purposes”. By hypothesis, then, these bodies lack minds and differ from us only in this respect. It may look as though we are being asked to contemplate the existence of mere human bodies, but we are not. I explain why this is so in more detail below, but note that Descartes is taking for granted that our physical duplicates are machines without minds, and he is seeking to show what machines cannot do. He is about to describe the limits of animal and mechanical intelligence.

Related to this is a second point. Descartes is seeking a “means” of knowing not that a mind *is* present in a given body but rather that a mind is *not* present in a given body. In other words, he is seeking to

39. AT VI 1, CSM I 111.

40. AT VI 56, CSM I 139–40.

falsify the belief that beasts (and machines) have minds and genuine intelligence. Thus, the target of the *Discourse* is *not* the skeptic about the existence of other minds but the overly credulous who accept that living things besides human beings have minds or separate souls.⁴¹ Unless the subsequent passages from the *Discourse* suggest otherwise, all we should expect to find is: (1) a clarification of the limits of machine intelligence that will allow us to conclude that (2) we are in the presence of a mere machine.

The *Discourse* proceeds to offer two “means of recognizing” a mindless machine. First comes the “language test”:

We can certainly conceive of a machine so constructed that it utters words, and even utters words which correspond to bodily actions causing a change in its organs (*e.g.* if you touch it in one spot it asks what you want of it, if you touch it in another it cries out that you are hurting it, and so on). But it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence, as the dullest of men can do.⁴²

Reminiscent of the Turing Test—though with the very different focus of determining who does not have a mind—here the machine under consideration simulates our appearance and behavior so exactly that not only does it look like us, it sounds like us and it even responds to external stimuli in the same way.⁴³ But, says Descartes, the latter is possible

41. We saw in the last section that the Aristotelian scholastics, with their hylo-morphic view of natural bodies, were committed to animals having a motive or sensitive soul. They were among Descartes' likely targets in *Discourse* part five.

42. AT VI 56–7, CSM I 140.

43. Similarities between Descartes' claims in the *Discourse* and Turing's famous simulation test have been noted and discussed by several scholars. Most recently, Darren Abramson has even suggested that Turing was directly influenced by Descartes (Abramson 2011, which also summarizes the literature linking Descartes and Turing). I would note, however, that Turing

only because of specific changes “in its organs”, something we know to be the case because, by hypothesis, we are dealing with a machine, and a machine is merely a collection of organs and material parts.⁴⁴ In other words, arrangements of its material parts and changes in these arrangements are the sole basis on which to conceive of the machine’s behavior. Descartes concludes that the resemblance between us and the machine ends where meaningful language use begins.⁴⁵

It is essential to Descartes’ first test that meaningful language use cannot be conceived on the basis of arrangements and rearrangements of material parts alone. The specific limitations Descartes assigns to machines derive from his view that matter is mere extension, and I think he is right that *his* matter theory does not equip us to explain meaningful language use. But even if we do not accept Descartes’ physics of extended matter, the language test draws on the plausible distinction between responding appropriately because of a material change and responding appropriately because one knows what an appropriate response is. If we know that something is a machine, we can know that it is not capable of using language in a meaningful way. What machines can do, at best, is *appear* to use meaningful language.

misunderstands Descartes—as least as I interpret the latter—and further that the problem posed by More in a late letter to Descartes about the mindedness of children poses as much a problem for Turing as it does for standard readings of Descartes’ language test.

44. Descartes also believed that a human being’s behavior is made possible by its organs, although the organs do not suffice to explain every human action. In the *Description of the Human Body*, Descartes writes that “the soul cannot produce any movement in the body without the appropriate disposition of the bodily organs which are required for making the movement”. Descartes even goes on to say, “[W]hen all the bodily organs are appropriately disposed for some movement, the body has no need of the soul in order to produce that movement” (AT XI 225, CSM I 315).

45. The originality of this first test was challenged by the late-seventeenth-century anti-Cartesian Pierre-Daniel Huet: “When [Descartes]...taught that man is distinguished from the animals by speech, this had already been taught by Pythagoras, Plato, Cicero, Quintilian, Galen, and others” (Huet 2003, 221). For discussion of the early modern interest in language and the language capacities of animals, see Serjeantson 2001.

However unsatisfying the “language test” may seem if we introduce a more robust matter theory, in the *Discourse*, Descartes proceeds immediately to the second of his two tests:

[E]ven though such machines might do some things as well as we do them, or perhaps even better, they would inevitably fail in others, which would reveal that they were acting not through understanding but only from the disposition of their organs. For whereas reason is a universal instrument which can be used in all kinds of situations, their organs need some particular disposition for each particular action; hence it is morally impossible [*moralement impossible*] for a machine to have enough different organs to make it act in all the contingencies of life in the way in which our reason makes us act.⁴⁶

This is the “adaptability test”. Machines are quite successful at performing actions their organs and parts are disposed to perform. Where machines are not successful is in performing actions outside of their pre-set or designed performance range. Put another way: Descartes is reminding us that the arrangements and rearrangements of finite material parts have a limit. By contrast, we who have minds are able to adapt to an infinite number of situations well outside our bodies’ design specifications. This is all Descartes means when he calls reason a “universal instrument” in contrast to the particular instruments we find in machines.

In the *Discourse*, Descartes is segregating machine look-alikes from real human beings on the basis of what we know and can infer from their observed behavior. By providing a means of falsifying our belief that the living things that look like us have minds, however, Descartes is not falsifying the belief that they are mere human bodies. He is not showing that certain bodies have minds. Nor is he showing that there exist what I called in section two “mere human bodies”. Rather,

46. AT VI 56–7, CSM I 140.

the default belief for Descartes (and his Aristotelian contemporaries, though for different reasons than the ones given in the *Discourse*) is that all living human bodies have minds, and nowhere in the *Discourse* does Descartes take the step of wondering why he thinks this or whether he should. As a result, the *Discourse* is hardly a starting point for SOM. As I indicated when discussing the opening passage to the two tests, the “means of recognizing” are best understood as *clarifications* of something we already know. The two tests simply offer an illustration of what machines can and cannot do. In fact, both tests seem to reduce to the idea that the behavior of machines and animals is limited to the diverse arrangement of their many parts. This is the advertised difference between our souls, which are not so limited, and the souls of beasts, which, not being immaterial, are limited in just this way.⁴⁷

5. Descartes’ answer to SOM

Having now dispatched the most prominent texts associated with SOM in Descartes’ work and shown that they fail to engage with SOM, I hope to have at least made plausible my suggestion that Descartes does not share Cordemoy’s assumption that the human body can exist without a mind. We are left with only one additional passage to consider. It comes from the same late letter from Descartes to Henry More cited in the previous section, although this time the issue is not about the attributes of corporeal substance. Rather, the subject under discussion is part five of the *Discourse*. Quickly, however, the topic turns to SOM. In this section, I will trace this movement from a discussion of animal souls to other minds, and I will reconstruct Descartes’ answer to the version of SOM presented by More. Doing so will require

47. A more typical description of Descartes’ final position is that we have souls and animals do not. However tempting this description may be—and Descartes does mostly equate “soul” with “rational soul” or “mind”, thereby denying the existence of any soul save our own (for discussion, see Cottingham 1992, 236; cf. Fowler 1999, chapter 5)—the qualification that animals lack immaterial or immortal souls is the key point, and on several occasions outside of the *Discourse*, Descartes refers to the material souls of animals (e.g., AT I 414–15, CSMK 62). Also recall the initial description of what we are told to expect from the two tests (AT VI 1, CSM I 111).

juxtaposing the letter to More with Descartes’ *Meditations* and his technical use of the Latin *complexio* in his description of our “nature”. By the end of this section, we will see that Descartes continued to assume that human bodies will have minds until proven otherwise, just as he had done in the *Discourse*, only that in response to More he is willing to add that appeals to the origins of our species, God’s immutable nature and the human body in particular can answer SOM. In other words, it is Descartes’ belief that all human bodies must have minds, which is precisely what Cordemoy failed to appreciate.

Just prior to the letter we are interested in, Descartes writes boldly to More about the link between mindedness and language use:

...speech is the only certain sign of thought hidden in a body. All human beings use it, however stupid and insane they may be, even though they may have no tongue and organs of voice; but no animals do. Consequently this can be taken as a real specific difference between humans and animals.⁴⁸

This is not quite the position from the *Discourse*. Descartes is here telling More that we never encounter a human being who fails to show genuine language use. More responds with a devastating counterexample:

But neither do infants, at least for many months, while during that time they cry, laugh, have fits of anger, etc. Nevertheless, I assume you would not deny that infants are alive and possess a thinking soul.⁴⁹

More cuts to the quick on the language test *if* it is taken as evidence for the existence of other minds. If the “only certain sign” that a mind is present in a body is that the living body uses speech, what are we

48. AT V 278, CSMK 366.

49. “Nec infantes ulli, per aliquam multa saltem mensium spatia, quamvis plorent, rideant, irascantur &c. Nec diffidis tamen, opinor, quin infantes sint animati, animamque habeant cogitantem” (AT V 311).

to say of infants? How do we know that other minds exist in this case? More's question challenges Descartes to deal with an instance in which, by hypothesis, a mind is present but hidden by virtue of failing the language test.

Unlike anything we have encountered so far in Descartes, this is an expression of SOM precisely because Descartes is challenged to confirm a belief in the existence of other minds by articulating the inference we make in the course of forming our belief. He is not called upon to describe the general manner in which we can come to know anything—as was his topic in the *Meditations*—but rather he must explain specifically how he justifies his belief in the existence of other minds. In effect, More is asking how Descartes knows that a given human body has a mind if we cannot infer anything on the basis of its behavior.

In responding to More's version of SOM, Descartes is not considering a question that he raised himself. He should not be seen as somehow creating SOM. Still, Descartes' answer should be instructive, and it is unfortunate that it looks to be anything but responsive:

Infants are in a different case from animals: I should not judge that infants were endowed with minds unless *I saw that they were of the same nature as adults* [*eiusdem naturae cum adultis*]; but animals never develop to a point where any certain sign of thought can be detected in them.⁵⁰

This reply is especially unhelpful because it fails to elaborate what Descartes means by "the same nature". If we interpret having "the same nature" as sharing an essence, which would be the most natural reading, Descartes is telling More that infants are the same as adults and that therefore they have minds. Clearly this begs the question of whether infants have minds.⁵¹

50. AT V 345, CSMK 374; emphasis added.

51. Gabbey 1990 offers a similar analysis, although Margaret Wilson puts the trouble with Descartes' answer best: "The claim that More meant to support

Interpretation and reconstruction is required here. First, we must show that Descartes is not begging the question. Second, we need to provide an alternative way to understand the language test from the *Discourse* so as to avoid being cornered into accepting that infants either use language or lack minds. The interpretation I offered in the previous section for those passages in which Descartes first introduced the language test suggests a way of satisfying the second need. If he is not interested, in the *Discourse*, in showing which bodies have minds but only which bodies do not, then the language test cannot be used in the way the correspondence with More suggests.⁵² Alternatively, one could liken the case of infants to that of adults who are not using language at the present time—*e.g.*, they are daydreaming, they are not listening, no one is talking to them, etc. In such cases, we presume that they have a capacity or ability to speak, and therefore we judge that they have minds. Perhaps in the case of infants, Descartes is telling us that infants have the potential to develop the capacity to speak and that, by virtue of this fact, they must have minds.

More interesting, I think, is the possibility of finding a defensible answer to SOM by showing that Descartes is not arguing in a circle.⁵³

by the example of infants is just that there is no strict correlation between evident linguistic competence, and ascriptions of mentality that Descartes himself would endorse. Descartes' answer does not address this implication" (Wilson 1999, 498).

52. When Descartes writes that language is the only "sure sign" of thought, in his earlier correspondence with More, he presents a view inconsistent with my interpretation of the *Discourse*. The best strategy I can imagine here is to interpret Descartes' appeal to "sure signs" as tantamount to assuming that genuine language use cannot occur without a mind being present. Ergo, if this is an instance of genuine language use, then we have a "sure sign" that a mind is present. This affirms the relationship between genuine language use and mindedness, but it hardly eliminates the difficulty of deciding whether we are encountering genuine language use in a specified case. Not wanting to confront this difficulty characterizes Descartes' use of the language test, however, and suggests again that the test is actually directed to falsifying a belief that a mind is present in a given body.

53. With the sole exception of Alan Gabbey, I know of no commentator who has taken the response to More to hold any promise (Gabbey 1990). The argument I reconstruct is indebted to Gabbey's work, although we marshal

The key to Descartes' salvation lies in his claim that he recognized infants "were of the same nature as adults [*eiusdem naturae cum adultis*]." But what conception of "nature" is Descartes working with here? In order to answer this question, we should look to Meditation VI where Descartes discussed the various meanings of "nature".⁵⁴

For if nature is considered in its general aspect, then I understand by the term [1] nothing other than God himself, or [2] the ordered system of created things established by God. And by my own nature in particular I understand [3] nothing other than the totality of things [*complexionem eorum omnium*] bestowed on me by God.⁵⁵

The sense of "nature" brought to bear in the letter to More is surely the third of these three, which is the only one that pertains directly to us. The key phrase is "*complexionem eorum omnium*". And the question now is: What is our *complexio*?

There is no explicit answer to this question in the secondary literature related to Descartes, and current English translations of the *Meditations* are of little help, as are seventeenth-century translations, though for a different reason. In the excellent and now standard translation done by John Cottingham, et al., that I have cited up until now, the word *complexionem* is left out, which deprives us of needed guidance. Donald Cress attempts a translation that includes *complexionem*:

slightly different evidence for our claims. Some of the differences between our views are these: (1) I think better of the prospects for a "substantial union" of mind and body in Descartes; (2) I do not believe "divine light", in the form of biblical evidence that God wants to save human beings—plural—enters into Descartes' response; and (3) I endorse the purely physical character of our *complexio* or nature (on this last difference, see note 63 below).

54. For discussion of the various significations of "nature" in the late scholastic Aristotelian tradition, see Des Chene 1996, 212ff.

55. "...per naturam enim, generaliter spectatam, nihil nunc aliud quam vel Deum ipsum, vel rerum creaturarum coordinationem a Deo institutam intelligo; nec aliud per naturam meam in particulari, quam complexionem eorum omnium quae mihi a Deo sunt tribute" (AT VII 80, CSM II 56).

...for by "nature," taken generally, I understand only God himself or the coordination, instituted by God, of created things. I understand nothing else by my nature in particular than the *totality* of all the things [*complexionem eorum omnium*] bestowed on me by God. (*Meditations*, Cress trans., emphasis added)

Whereas Cottingham translates "*eorum omnium*" as "totality of things", Cress reserves "totality" for "*complexionem*" and uses "of all the things" as a translation of "*eorum omnium*". Cress' choice is certainly better, but our *complexio* is not simply a "totality".⁵⁶

To see why Cress' translation is inadequate, consider two seventeenth-century translations of the *Meditations* into French and English. In his 1647 French translation, Louis-Charles d'Albert, Duc de Luynes, renders "*complexionem*" as "*complexion*", effectively preserving it by leaving it untranslated. William Molyneux's 1680 English translation opts for the same strategy, rendering "*complexionem*" as "*complexion*".⁵⁷ The precedent set by these earlier translations suggests that an appropriate amendment to the Cottingham translation may be the following: "by my own nature in particular I understand nothing other than the *complexio* of all those things [*complexionem eorum omnium*] bestowed on me by God". Yet this does not help modern readers, because we still need to know what our *complexio* is if not a totality.

The sense of "nature" at stake in the passage from the *Meditations*, and in the letter to More, is tied to the resurgence of Greek and Latin learning at Salerno during the eleventh century.⁵⁸ To resolve interpreta-

56. Desmond Clarke's translation of the *Meditations* renders *complexio* as "complex", whereas Michael Moriarty renders it as "combination" (Descartes 1998 and 2008, respectively). These may be better choices than "totality", but they are misleading for the same reasons I am about to offer against "totality".

57. A number of English editions of Molyneux's translation can be found online at Early English Books Online, but a copy is also contained in the appendix to Gaukroger 2006, 237.

58. At least two reasons to question my particular emphasis on *complexio* are adduced in note 63 below. My account of the term's origins relies upon

tive and terminological difficulties coming from the newly discovered work of Galen and the competing translations of, and commentaries on, his and Aristotle's natural philosophy, professors at Salerno had to make definitive choices to achieve terminological clarity. In one case in particular, they turned to the *Pantegni*, a translation done by Constantine of Africa of an extensive Arabic medical encyclopedia of the tenth century. As far as I have been able to determine, *complexio* appears for the first time in the *Pantegni*, and the professors at Salerno embraced it to refer to the temperaments, *i.e.*, the mixtures of qualities that characterize the temperaments of species and individuals; it corresponds to the Arabic *mizāj*, which is a translation of Galen's Greek *crasis*.

The idea behind temperament or *complexio* was that the elements of fire, air, water and earth each possess unique qualities—fire is hot and dry, air is hot and moist, etc.—and the mixture of these elements results in a mixture of fundamental qualities. Since all natural bodies are mixtures of pure elements, knowing the *complexio* of a body amounts to knowing its natural balance of fundamental qualities. Such knowledge was central to Galen's scientific medicine, which proceeded on the assumption that the natural balance of primary qualities was the healthy state of an individual. As late as the seventeenth century, *complexio* and its vulgar language derivatives still carried the same connotation, with a clear emphasis on our mixed bodily constitution. The first definition of the French "*complexion*" in the *Dictionnaire de l'Académie française* (1694) read simply, "temperament, constitution du corps". Similarly, Randle Cotgrave's *A Dictionary of French and English Tongues* (1632) rendered the French *complexion* in the first instance as "The complexion, making, temper, constitution of the body." This is persuasive evidence that *complexio* still carried a specific meaning in the seventeenth century stemming from its place in the medical tradition. Descartes was well acquainted with this

Jacquart 1988.

tradition, and he would surely have expected his readers to recognize the import of *complexio*.⁵⁹

To return, then, to the issue that set us going in the correspondence with More—what "nature" do we share with infants—the answer is that we share the same *complexio*. We share the same *bodily* constitution. If this is right, then the appropriate follow-up to More's initial question is: How could citing a shared physical constitution help us judge that infants have minds even though they display no apparent signs of mentality? How, in other words, could the mere presence of a body, even of a very specific kind, tell us anything about the existence of a mind? This question will seem all the more pressing when we recall Descartes' real distinction argument, so important to Cordemoy's discussion of SOM, and Descartes' advice to Henricus Regius that "when we consider the body alone we perceive nothing in it demanding union with the soul, and nothing in the soul obliging it to be united to the body".⁶⁰ Descartes appears to be telling Regius that the existence of a body will imply nothing about the existence of a mind. Since the mind and body are really distinct substances, how could identifying the right *complexio* serve as a response to More?

To be as clear as possible about the stakes in answering these questions, Descartes' unwillingness to engage with SOM, and his insistence that we will not find a human body, even an infant's body, that lacks a mind, strike a blow against those who interpret his privileging of self-knowledge and his dualism between mind and body as setting the stage for SOM. All the textual evidence canvassed to

59. For a thorough account of Descartes' knowledge of medicine, see Aucante 2006a.

60. Descartes' remark to Regius occurs in a letter that has been the subject of dispute among commentators (AT III 461, CSMK 200). Descartes is advising Regius how to deal with colleagues at Utrecht who might object to Descartes' philosophy. As a result, to some readers, it seems that Descartes is offering practical advice about how to avoid controversy rather than a clarification of his actual views. The fact that Descartes' advice is consistent with the position he takes against More suggests, however, that the letter to Regius should be taken as a genuine expression of his considered view (for further discussion and a different conclusion, see Chappell 1994; cf. Hoffman 2009, 15–32).

this point, where the question of the human body's possible existence without a mind ought to have been raised, points to Descartes not having the right conception of the human body to generate SOM. Earlier, in section two, I argued that in order to account for the emergence of SOM, it is not enough to admit to an asymmetry between the way in which I come to know I exist as a thinking thing and the way in which I come to know you exist. Cordemoy took the relevant question to be whether the bodies "that are in all things like mine" have minds, and this presumes a conception of human bodies not depending on or, by their nature, implicating the existence of a mind. Such a conception was lacking in the Aristotelian tradition as well as Descartes' answer to More, and ultimately the significance of our human *complexio* suggests that Descartes lacks such a conception of the human body. This entails that Descartes' break with the scholastic Aristotelian tradition is not as stark in the case of living human bodies as is normally thought, a point to which I will return to in my conclusion below.

But now for Descartes' response to More and SOM. The first point to notice about the human *complexio* is that there is nothing supernatural about it. We derive our bodily constitution from our parents, who derived it from their parents, and so on, as a result of the natural propagation of members of our species.⁶¹ In this, we are no different from any other living thing not spontaneously generated. What distinguishes us is that our *complexio* is unique to our species and, more than this, Descartes is committed to members of our biological species all having minds for, in the beginning, God ordained that beings with our *complexio* would be given minds. According to Descartes, it is our *complexio* that links us to our forebears and ultimately to Adam and Eve. Starting with them and continuing to the present day, members of our species have had minds (to say nothing of sin), and Descartes never

61. That our parents are the proximate cause of our physical existence is intimated at AT VII 49, CSM II 34 and stated explicitly at AT XI 253ff. For more on Descartes' embryology, where the causal contribution of each parent is emphasized, see Descartes 2000; Des Chene 2001, 32ff.; and Aucante 2006b.

doubts "that the mind begins to think as soon as it is *infused* [*infusa est*] in the body of an infant".⁶²

The answer to More that Descartes left almost entirely undeveloped relies on God having privileged the human *complexio* in his initial act of creation on the Sixth Day.⁶³ This act still resonates for the simple reason that, in spite of God's infinite power, his willing never changes.⁶⁴ As Descartes says in numerous places, including *The World*, "it is easy to accept that God...as everyone must know" is "immutable [and] always acts in the same way".⁶⁵ Descartes took it as obvious that it is

62. AT VII 246, CSM II 171; modified and emphasis added.

63. This is the answer Alan Gabbey wants to endorse as well. For Gabbey, however, our *complexio* is a blending of material elements with the mind. His reading is supported by Descartes' claim later in Meditation Six to limit his discussion of our *complexio* to just "what God has bestowed on me as a combination of mind and body [*ut composito ex mente & corpore*]" (AT VII 82, CSM II 57). It arguably also gains support from the original passage citing *complexio*—"complexionem eorum omnium quae mihi a Deo sunt tribute [sic]"—where the relative clause goes with "*eorum omnium*". This makes it seem that God's bestowing "all the things" is emphasized and not the *complexio* that God gives us. I make the case for my interpretation in the text above. Regardless of whether Gabbey's interpretation is to be preferred, there is some precedent in Augustine for the general claim that Gabbey and I find Descartes making. Both Augustine and Descartes treat knowledge of our own bodies and of Adam's body as a way of knowing our species generally. They then infer that other members of our biological species must have minds too, just like we do (see Matthews 1998 and 1999 for an interpretation of Augustine along these lines). Interestingly, this makes the argument a kind of argument by analogy where we treat ourselves or Adam as an exemplar case. I do not explore this point in the paper, but it is discussed in the essays by Matthews.

64. Descartes' account of God's act of creation and subsequent acts of will have unusual modal implications in the so-called "doctrine of eternal truths", according to which, as I understand it, anything created is at most contingently necessary but not necessarily necessary (see, e.g., AT I 145–146, CSMK 23). God's immutable nature is necessarily necessary. Sidestepping these contentious issues, what matters for my argument is that, after the initial act of creation, Descartes insists that God's relationship to his creation never changes. This captures the necessity Descartes attributes to the laws of nature deriving from God's immutable nature and, I believe, the same kind of necessity precludes the possibility of mere human bodies (for discussion of Descartes' laws, see Gabbey 1980; Garber 1992, 197ff; Gaukroger 1995, 241ff; and Machamer and McGuire 2009).

65. AT X 38, CSM I 93. See also AT VIII 61, CSM I 240 and AT I 145–146, CSMK 23.

part of God's nature and a mark of God's perfection that God is immutable. One might say God is so perfect he never makes a mistake, and never making a mistake, God never has to change or alter his ways. As a result, whenever we gain specific knowledge of God's initial act of creation, the source of which is the Bible in this case, we can use this knowledge to infer from what God did in the beginning to what God will always continue to do. In Descartes' physics, these claims come together to support the laws of nature that control motion, which is the context for the passage just cited. In the letter to More, God's immutability helps explain why Descartes fails to see an infant's body as an unthinking machine or a mere human body. Recall what he wrote to More: "I should not judge that infants were endowed with minds unless I saw that they were of the same nature as adults." More wanted to know about the viability of the language test as a way to respond to SOM. Descartes, however, was more interested in what the origin of a body tells us about its nature.

To be clear: I am suggesting that our general understanding of God's immutable nature coupled with the infant's having been naturally propagated is what assures us that the infant has a mind. Does the infant have the right *complexio* connecting it to the progeny of Adam and Eve? According to Descartes, this is the only question we need to answer when confronted with SOM, and there is no special epistemological challenge lurking in this question.

Descartes' interest in the origin of a body, any body, is a prominent feature of his physics generally and not unique to the human body. In the *Principles*, he writes:

Adam and Eve were not born as babies but were created as fully grown people. This is the doctrine of the Christian faith, and our natural reason convinces us that it was so.... Nevertheless, if we want to understand the nature of... men, it is much better to consider how they can gradually

grow from seeds than to consider how they were created by God at the very beginning of the world.⁶⁶

Once we confirm a shared *complexio* through natural propagation, which is a matter of natural growth "from seeds", SOM can be put to rest.⁶⁷ All this is a simple matter of confirming a natural fact, just like confirming any other natural fact about the material world. It is for this reason that Descartes did not need to do what Cordemoy thought was required, namely offer an additional proof for the existence of other minds. Unless we still have doubts about the existence of the material world, we can proceed to dispose of SOM in the same way we go about disposing of doubts related to the existence of the sky, Earth or any other particular body. From Descartes' point of view, we are entitled to be as confident about the existence of other minds as we are about the existence of other human bodies.

This reconstruction of Descartes' response to More avoids burdening Descartes with begging the question of whether infants have minds. Emphasizing our shared *complexio* is, I think, our best prospect for saving Descartes. Beyond its saving graces as part of a response to More, however, emphasizing our *complexio* is consistent with other of Descartes' texts where he indicates that the human body must exist together with a human mind. Consider just one example.⁶⁸ Writing to Regius, Descartes explains: "...if the body has all the dispositions required to receive a soul, and without which it is not strictly a human body [*& sine quibus non est propriè humanum corpus*], then short of a miracle it must be united to a soul".⁶⁹ This is precisely what Descartes is trying to convey in his reply to More. By virtue of their *complexio*, in-

66. AT VIII A 100, CSM I 256.

67. For discussion of the nature of "seeds" during Descartes' time, including their purely physical or material character, see Roger 1963 and Hirai 2005. For the presence of seemingly anti-dualist views about seeds and embryology within the earlier Neo-Platonic dualist tradition, see Wilberding 2008.

68. See also AT IV 166–170.

69. AT III 460–461, CSMK 200; modified.

fants have “all of the dispositions required to receive a soul”. And, barring a miracle, they must have a soul or mind.⁷⁰ In other words, human bodies without a mind are impossible human bodies.

6. Conclusion

Once our doubts about the existence of the external world are put to rest, Descartes never shows any signs of being willing to accept that a fully functioning, living human body will exist without a mind. Our own existence as a composite of mind and body is part of a pattern, the precedent for which God established with Adam. Whether this means that the essence of the human body somehow includes the mind for Descartes is a possibility in need of further study, though there is no space to pursue it here.⁷¹ But there is a parallel case that suggests it is a possibility. In the initial act of creation related to corporeal substance in *The World*, Descartes describes God as creating a

70. In another letter to Regius, Descartes hypothesizes that “if an angel were in a human body, he would not have sensations as we do, but would simply perceive the motions which are caused by external objects, and in this way would differ from a real man” (AT III 493, CSMK 206). This may appear to contradict what I have tried to show Descartes finds impossible—that a human body could exist in the natural world without a mind—but that would be a misreading. First, it overlooks the fact that, in this case, too, where there is a human body there is a mind, albeit an angel’s mind. Second, there are historical reasons to doubt whether anyone thought a demonic or angelic presence in the human body could occur without a human soul also being present; the demonic soul taking possession of the human body was referred to as an “assisting form [*forma assistens*]” (for discussion, see van Ruler 1995, 187ff.). And finally, one would certainly be justified in calling angelic or demonic possession miraculous.

71. Differing views on the nature of the union between mind and body appear in, e.g., Chappell 1994, Hoffman 2009, Cottingham 1985, Schmaltz 1992, Voss 1994, Rozemond 1998 and 2010, Skirry 2005 and Machamer and McGuire 2009. Regardless of how much one emphasizes that Descartes is a dualist or a proponent of quasi-Aristotelian hylomorphism, the fact that I have labored to bring out is that Descartes is committed to living human bodies always existing with minds. My own view on the nature of the union is that Descartes’ position tended toward viewing the union as the human body itself, which is, ontologically speaking, a more complicated body than any of the others that appear in the natural world. Questions about the union then become questions about the ontology of the human body. I hope to defend and elaborate this view in future work.

“perfectly solid body”.⁷² The introduction of motion into this body is a separate act in *The World*, though it is also said to be part of the first “act of creation” of the solid body. Conceiving a solid body and then only subsequently the introduction of motion implies that Descartes would accept that motion is not among the essential properties of a corporeal substance but, to the contrary, he repeatedly lists motion among the modes of a corporeal substance.⁷³ Descartes’ substance-mode ontology is not easily applied to the case of the human body and the human mind, yet, perhaps, something similar can be inferred about the creation of a human body that has a mind subsequently “infused” into it by God. My claims in this paper have given us reason to believe that what appear as conceptually distinct acts by God may result in an essential combination. This is suggestive but obviously not definitive.

What is definitive, however, is that when it comes to finding mere human bodies, Descartes’ position is not so different from the scholastic Aristotelian’s position. Both Descartes and the Aristotelians take the human body to implicate the existence of the human soul. But why, then, are we so often told, especially by Descartes himself, that it was one of Descartes’ goals in physics to replace the scholastic view of bodies as matter-form composites with a view of bodies as mere extension?⁷⁴ How does this goal fit with his views about the human body? And specifically, if the human body is not a body like all the others, what kind of body is it? What is the relation between the living human body, the embryo’s body and the human corpse? Does the physicist get to study the human body, or is it reserved for the metaphysician or, possibly, the physician?⁷⁵ These questions gain added

72. AT XI 33; CSM I 91.

73. See, e.g., AT VIII B 32, CSM I 216.

74. See, e.g., AT XI 31ff., CSM I 90ff.

75. This question runs parallel to the question of who studies the human soul, which we know must be embodied, because of the unique character of its sensory experience. Gary Hatfield has addressed this parallel question on several occasions, and, if I understand him correctly, his view is that the

historical significance given that Cordemoy, one of Descartes' earliest and most innovative readers, failed entirely to notice that they might be worth asking. For Cordemoy and the majority of first-generation Cartesians, the human body was a mere human body. It was markedly distinct from the human body analyzed as a matter-form composite in the Aristotelian scholastic style. These early Cartesians understood Descartes as maintaining the same position. However, we now know that Descartes was not on their side. Recognizing as much, we can add to our list of questions: When did Descartes' actual view fade into the background? I hope this paper will encourage others to consider this and the previous questions as I too have now begun to do.⁷⁶

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- physicist studies the mind and that Descartes' naturalism should not be equated with his materialism (see, e.g., Hatfield 2001, Manning [forthcoming], cf. Alanen 2008). I concur on both points, and I think my claims here add further support to Hatfield's conclusions.
76. This has been a paper very long in the making, and I have accumulated numerous debts along the way. I especially wish to acknowledge Alison Simmons, who, as a reader of my undergraduate thesis, challenged the silly things I had to say about Descartes and prompted me to get things right. Since then, Daniel Garber, Charles Larmore, Alan Gabbey, Matthew Shockey, Alan Goldman, Timothy Costelloe, Chris Hitchcock, Fiona Cowie, Edouard Machery, Marius Stan, Owen Ware, Melissa Pastrana and several anonymous reviewers have all read some version of this paper. For their help and for the thoughtful questions asked by audiences at the College of William and Mary, the University of South Carolina, the Southwest Seminar in Early Modern Philosophy, the California Institute of Technology, Newcastle University and the Montreal Interuniversity Workshop in the History of Philosophy, I am very grateful.
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